NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	1 OF 0 6

TITLE (4) Improper Radiation Monitor Alarm Setpoints

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 1	0 1	8 4	8 4	— 0 0 1	— 0 0	0 1	3 1	8 4	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10) 0 6 9		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Frank Novachek, Technical Services Engineering Supervisor	AREA CODE 3 0 3 7 8 5 - 2 2 2 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
A	I L	Z Z Z Z	Z 9 9 9	N							

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

During the period January 1, through January 10, 1984, radioactive gaseous effluent activity monitor alarm/trip setpoints were not adjusted in accordance with the Offsite Dose Calculation Manual (ODCM). This condition would not have led to gaseous radioactive effluent releases exceeding Maximum Permissible Concentrations (MPC). However, the event was contrary to the requirements of the Fort St. Vrain Technical Specification ELCO 8.1.1.j) and is reportable per 10 CFR 50.73(a)(2)(i).

The radioactive gaseous effluent activity monitor alarm/trip setpoints were properly adjusted and applicable procedure changes were made to prevent recurrence.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

EVENT DESCRIPTION:

On December 22, 1983, following receipt of Amendment No. 37 to the Fort St. Vrain (FSV) Technical Specifications, a memo requesting adjustment of the radioactive gaseous effluent activity monitor alarm/trip setpoints, in accordance with the ODCM, was sent to the appropriate department heads. The ODCM method for determining monitor setpoints is based on the same off-site dose levels and MPC limits as the previous setpoint determinations. The setpoint adjustments were necessary to implement Amendment No. 37, as required, on January 1, 1984, and were based on instrument sensitivity, as determined by periodic calibrations, and reduced by a factor of two to ensure that gaseous effluent releases are maintained as low as reasonably achievable.

On January 3, 1984, a compliance review of the Radiological and Environmental Technical Specifications revealed that the implementation requirements had not been met. Plant instrument personnel were immediately dispatched to adjust the activity monitor nominal setpoints to their proper values. The adjustments were completed on January 3, 1984, at approximately 1600 hours. Refer to Table 1 for a listing of the radioactive gaseous effluent monitors and their alarm/trip setpoints before and after adjustment. Figure 1 shows the relative location of each monitor in the effluent pathways.

An additional problem was discovered by plant management personnel during a review of the ODCM on January 10, 1984, when it was determined that up through that time, the requirements of the ODCM to readjust the noble gas activity monitor alarm/trip setpoints for each batch release made from the radioactive gaseous waste holdup system had not been addressed. However, a re-evaluation of this additional requirement concluded that since the nominal alarm/trip setpoints for the noble gas activity monitors (shown in Table 1) prevented any releases of radioactive gaseous effluent from exceeding MPC in any event, the additional requirement was not necessary, and the ODCM was revised to delete the requirement.

During the entire period, the plant was operating at approximately 69 percent thermal power and 190 MWE.

TABLE 1

MONITOR	SETPOINT BEFORE ADJUSTMENT ON JANUARY 3, 1984 (CPM)	SETPOINT AFTER ADJUSTMENT ON JANUARY 3, 1984 (CPM)
NOBLE GAS		
RT-7324-1	7.7E+4	3.5E+4
RT-7324-2	2.0E+3	1.3E+3
RT-6314-2	2.3E+6	1.7E+6
RT-4803	1.05E+4	2.3E+4
IODINE		
RT-73437-1	1.6E+4	2.0E+4
RT-7325-1	3.2E+3	1.6E+3
RT-4802	3.5E+3	1.9E+4
BETA PARTICULATE		
RT-73437-2	8.0E+3	9.5E+3
RT-4801	9.15E+3	1.0E+4

1 Upon high Reactor Plant Ventilation Exhaust Activity, FV-6351 closes.

2 Upon high activity, HV-6304-1 closes.

3 Upon high activity, alarms, indicates, and records only.

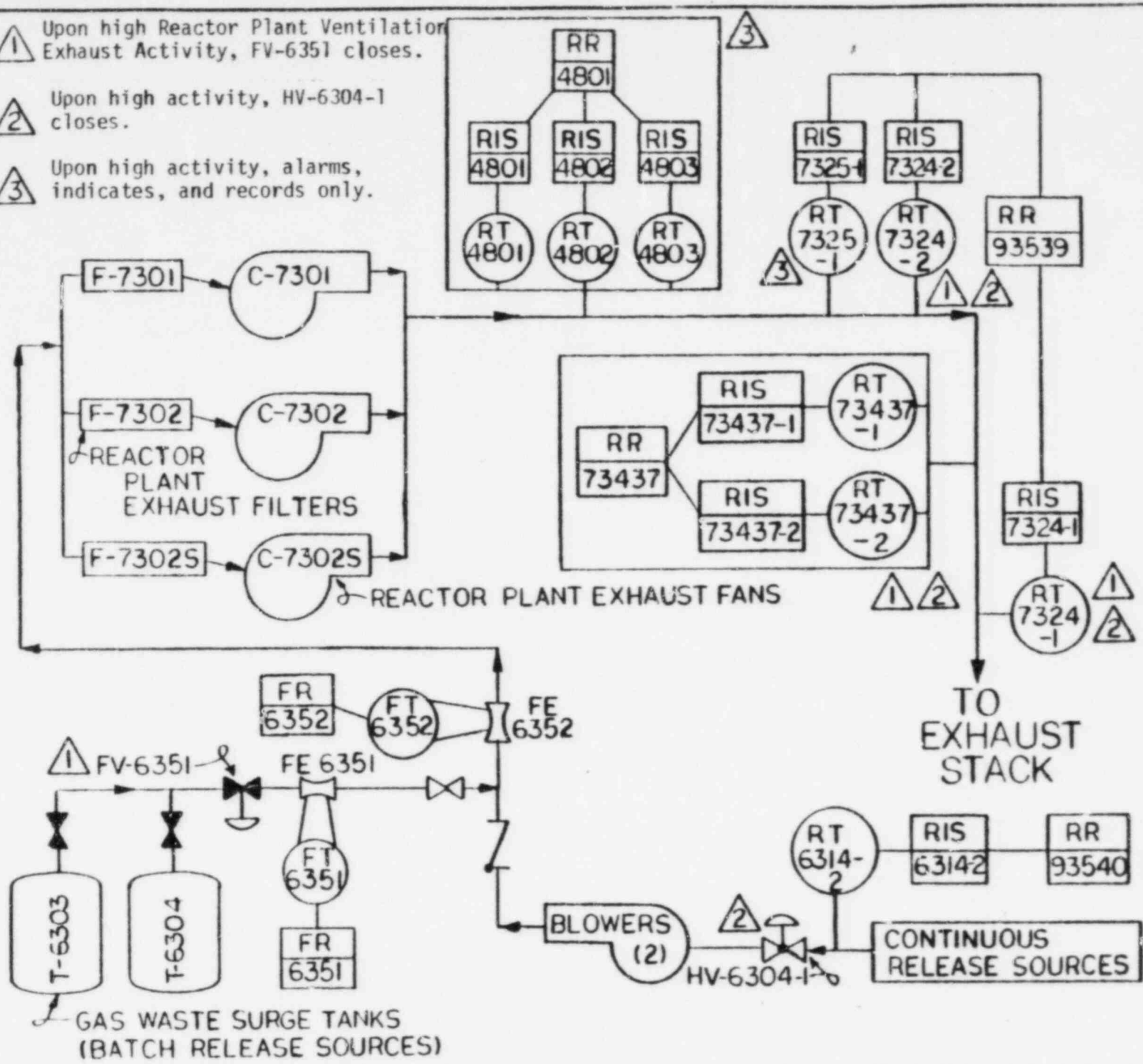

FIGURE 1

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

ANALYSIS OF EVENT:

Since the Technical Specifications in effect through December 31, 1983, were met for the period January 1 through January 10, 1984, the MPC would not have been exceeded. The previous setpoints, although less conservative, would have provided the appropriate protective action prior to exceeding any MPC limits. In addition, the source of gaseous effluent expected to have the higher activity is that from the gaseous waste holdup system. This gas, in all cases, is sampled and released contingent upon actual isotopic analyses and independently verified release rate calculations such that MPC is not exceeded. A review of the radioactive gaseous effluent monitor records has verified that MPC was, in fact, not exceeded during this period.

In addition to the primary radioactive gaseous effluent activity monitors/recorders (RT-7324-1 and RT-7324-2), redundant activity monitors and recorders (RT-4801, 02, and 03) were available and operable (ie. alarm setpoints were less than or equal to those determined in accordance with the ODCM).

Based on the above analysis there was no effect on the health and safety of the public.

CAUSE DESCRIPTION:

Personnel Error.

In the case of the radioactive gaseous effluent activity monitor nominal alarm/trip setpoints not being adjusted in accordance with the ODCM, the significance of implementing the new Technical Specifications was not recognized.

The additional requirement of the ODCM to readjust the activity monitor alarm/trip setpoints prior to each batch release was not followed due to personnel failing to follow procedure. Note that this requirement has since been deleted.

CORRECTIVE ACTION:

The noble gas activity monitor alarm/trip setpoints were adjusted in accordance with the ODCM on January 3, 1984.

The Radiation Protection Administrative Procedure No. 2 (RPAP-2), Offsite Dose Calculation Manual, has been revised to eliminate the need to readjust the noble gas activity monitor alarm/trip setpoints prior to each batch release.

No further corrective action is anticipated or required.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

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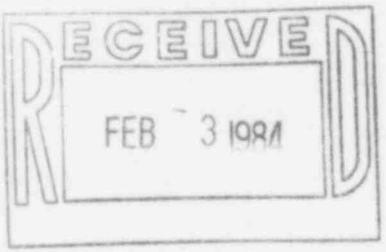
Manager, Nuclear Production

Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

50-267

January 31, 1984
Fort St. Vrain
Unit #1
P-84038



Mr John T. Collins, Regional Administrator
Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

REFERENCE: Facility Operating License
No. DPR-34

Docket No. 50-267

Dear Mr. Collins:

Enclosed please find a copy of Licensee Event Report No. 50-267/84-001, Final, submitted per the requirements of 10 CFR 50.73(a)(2)(i).

Very truly yours,

Don Warembourg
Manager, Nuclear Production

DWW/djm

Enclosure

cc: Director, MIPC

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